



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/556,503	04/24/2000	Charles J. Burnett	10991754-1	7659

22878 7590 05/27/2004

AGILENT TECHNOLOGIES, INC.  
INTELLECTUAL PROPERTY ADMINISTRATION, LEGAL DEPT.  
P.O. BOX 7599  
M/S DL429  
LOVELAND, CO 80537-0599

EXAMINER

TAYLOR, BARRY W

ART UNIT	PAPER NUMBER
2643	19

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/556,503

Applicant(s)

BURNETT, CHARLES J.

Examiner

Barry W Taylor

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. In view of the Appeal Brief filed on 9/22/03, PROSECUTION IS HEREBY REOPENED. Rejections set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4, 6, 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Emerson et al (5,553,059 hereinafter Emerson).

Regarding claim 1. Emerson teaches a slave test unit (see 22 figure) 1 for testing voice signal quality over phone connections (see wire pair 16 connected to either loop back point 28 or 30 figure 1) comprising:

Art Unit: 2643

at least two phone line connectors attached to separate phone lines (see first wire pair 16 having phone line connectors for transmit path and second wire pair 18 having phone line connectors for receive path, col. 4 lines 50-57),

means for transmitting and receiving electrical signals via the phone line connectors (see 16 and 18 figure 1), the electrical signals being transmitted and received between the slave test unit (see slave test unit 22 figure 1) and at least one remote test unit (see remote test unit 32 figure 1), the electrical signals received from the remote test unit (see remote test 32 figure 1) comprising commands;

means for decoding the test commands from the electrical signals received from the remote test unit (see col. 3 line 66 – col. 4 line 5 wherein the slave unit (i.e. 22 figure 1) monitors information received on lines 16 for test commands, see “command detector” col. 4 line 66);

means for executing the test commands, the executing means including the ability to generate test signals (col. 4 lines 58-60, col. 4 line 66 – col. 5 line) on any of the separate phone lines, the test commands being received exclusively from the remote test unit (i.e. 32 figure 1).

Regarding claim 2. Emerson teaches the slave (22 figure 1) uses pattern generator (36 figure 1) to send electrical signals back to remote (32 figure 1).

Regarding claims 4 and 13. Emerson teaches loop back command (col. 2 lines 6-8).

Regarding claim 6. Emerson teaches the remote test unit (i.e. 32 figure 1) inherently possesses a human operator interface which allows for control signals and test data signals to be transmitted and received from slave unit (i.e. 22 figure 1).

Regarding claim 11. Method claim 11 is rejected for the same reason as apparatus claim 1 since the recited apparatus would perform the claimed method steps.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emerson et al (5,553,059 hereinafter Emerson).

Regarding claims 3 and 12. Emerson does not explicitly show the test command is a dialback command. However, Emerson uses pattern generator (36 figure 1) for use when in pattern generating mode.

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of invention to modify the invention as taught by Emerson to use the pattern generator located in slave unit (i.e. 22 figure 1) to dial back the master (i.e. 32 figure 1).

Art Unit: 2643

4. Claims 5, 7-10, 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emerson et al (5,553,059 hereinafter Emerson) in view of Hardy et al (6,519,323 hereinafter Hardy).

Regarding claims 5 and 14. Emerson does not explicitly show test command is a quiet termination command.

Hardy teaches test unit for use at a network interface device wherein the test unit may be remotely activated from a remote site (abstract). Hardy discloses the testing unit may perform multiple types of tests, including tests for detecting line loss, line noise and latency (abstract). Hardy teaches the test unit may be able to generate tones, silence a line and identify latency for transmitted signals (col. 5 line 59 – col. 6 line 34).

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the slave unit (i.e. 22 figure 1) as taught by Emerson to include a silence element as taught by Hardy for the benefit of silencing portion of network enabling the slave unit to take measurement of line noise or echo path delay.

Regarding claims 7 and 16-17. Emerson does not explicitly show the remote unit is another slave unit.

Hardy teaches test unit for use at a network interface device wherein the test unit may be remotely activated from a remote site (abstract). Hardy discloses the testing unit may perform multiple types of tests, including tests for detecting line loss, line noise and latency (abstract). Hardy teaches the test unit may be able to generate tones, silence a line and identify latency for transmitted signals (col. 5 line 59 – col. 6 line 34). Hardy

Art Unit: 2643

teaches using first and second test units to determine line noise or echo path delay (col. 5 lines 59-67). Hardy also shows the first and second test unit may be used to transmit signals back and forth wherein the second unit echos the signal back to first unit.

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the slave unit (i.e. 22 figure 1) as taught by Emerson to first and second test unit as taught by Hardy for the benefit of silencing portion of network enabling with one unit and take measurement of line noise or echo path delay with another unit.

Regarding claims 8, 15 and 18. Emerson does not explicitly show DTMF signals. Hardy teaches test unit for use at a network interface device wherein the test unit may be remotely activated from a remote site (abstract). Hardy discloses the testing unit may perform multiple types of tests, including tests for detecting line loss, line noise and latency (abstract). Hardy teaches the test unit may be able to generate tones, silence a line and identify latency for transmitted signals (col. 5 line 59 – col. 6 line 34). Hardy teaches using first and second test units to determine line noise or echo path delay (col. 5 lines 59-67). Hardy also shows the first and second test unit may be used to transmit signals back and forth wherein the second unit echos the signal back to first unit. Hardy further shows performing test by generating a test tone, transmitting the test tone and measuring the line loss (col. 7 lines 15-18).

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the slave unit (i.e. 22 figure 1) as taught by Emerson to include test

Art Unit: 2643

tone element as taught by Hardy for the benefit of transmitting test tone and measuring line loss.

Regarding claims 9-10. Emerson does not explicitly show FXO or E&M.

Hardy teaches test unit for use at a network interface device wherein the test unit may be remotely activated from a remote site (abstract). Hardy discloses the testing unit may perform multiple types of tests, including tests for detecting line loss, line noise and latency (abstract). Hardy teaches the test unit may be able to generate tones, silence a line and identify latency for transmitted signals (col. 5 line 59 – col. 6 line 34). Hardy teaches using first and second test units to determine line noise or echo path delay (col. 5 lines 59-67). Hardy also shows the first and second test unit may be used to transmit signals back and forth wherein the second unit echos the signal back to first unit. Hardy shows performing test by generating a test tone, transmitting the test tone and measuring the line loss (col. 7 lines 15-18). Furthermore, Hardy shows long distance telephone lines (col. 1 lines 6-9) which reads on FXO. Hardy further shows earpiece and mouth piece connection (col. 3 lines 46-49).

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the slave unit (i.e. 22 figure 1) as taught by Emerson to first and second test unit as taught by Hardy for the benefit of silencing portion of network enabling with one unit and take measurement of line noise or echo path delay with another unit so that long distance carriers may be able to determine the location of problem.



***Response to Arguments***

5. Applicant's arguments filed 3/8/04 have been fully considered but they are not persuasive.

a) Regarding Applicant's remark on page 6 wherein Applicant's contend that Emerson only drives outbound line 18 of local loop 14. Thus, the NIU 22 of Emerson does not have "the ability to generate test signals on any of the separate phone lines", as required in independent claims 1 and 11.

It appears Applicant's invention is directed towards "the ability to generate test signals on any of the separate phone line pairs". However, Applicant's independent claims 1 and 11 are silent with respect to separate telephone line pairs. Emerson indeed discloses outbound line 18 is actually outbound lines (see col. 3 lines 37 and 42, col. 5 lines 4 and 16). In other words, Emerson teaches plurality of transmit and receive lines which implies separate phone lines verses Applicant's invention directed to telephone line pairs.

b) Regarding Applicant's comment regarding claim 2 appearing at the bottom of page 6 wherein Applicant's contend that Emerson does not teach encoding the test commands.

First of all, claim 2 depends upon rejected independent claim 1 listed above. Furthermore, Emerson teaches "Command Detector" (see figure 1).

Art Unit: 2643

c) Regarding Applicant's comment on page 7 regarding claims 3 and 12 being rejected under 35 U.S.C. 103(a) wherein Applicant's contend that DTMF are normally associated with tone dialing.

First of all, claims 3 and 12 depend upon rejected independent claims. Furthermore, claim 3 and 12 would have been an obvious measure to one of ordinary skill in the art of using pattern generator to generate dialback command.

d) Regarding Applicant's remarks starting at the bottom of page 7 regarding dependent claims 7 and 17 wherein Applicant's contend Emerson and Hardy fail to indicate a test unit receives commands from slave test unit acting as a remote unit.

First of all, claims 7 and 17 both depend upon rejected independent claims. Emerson indeed is aware of using commands having "device identifier" (col. 4 line 23).

e) Regarding Applicant's comment on page 8 regarding dependent claim 15 wherein Applicant's contend that Emerson nor Hardy show encoding and transmission of the test command.

Claim 15 depends upon rejected independent claim and it would have been obvious for any one of ordinary skill in the art at the time of invention to modify the slave unit (i.e. 22 figure 1) as taught by Emerson to include test tone element as taught by Hardy for the benefit of transmitting test tone and measuring line loss.

f) Regarding Applicant's comment starting at the bottom of page 8 regarding FXO/FXS appearing in claim 9 wherein Applicant's define FXO/FXS as well known standards used in the art.

The Examiner notes claim 9 depends upon a rejected independent claim. Furthermore, it would have been an obvious measure for one of ordinary skill in the art to incorporate known standards.

***Conclusion***

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

**7.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W Taylor whose telephone number is (703) 305-4811. The examiner can normally be reached on Monday-Friday from 6:30am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703) 305-4708. The fax phone number for this Group is (703) 872-9306.

Application/Control Number: 09/556,503

Page 11

Art Unit: 2643

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 customer service Office whose telephone number is (703) 306-0377.

  
CURTIS KENTZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600